

## ABSTRACT

Blok “Mustika” consist of three oil fields which is located in South Sumatra, they are “TG” field, “SN” field, and “BN” field. Blok “Mustika” was produced for the first time from layer M reservoir “X” of “TG” field in 1992, then layer K1 reservoir “X” was produced for the first time in 1994, and after that layer H0 reservoir “Y” of “SN” oil field was produced for the first time in 1996, and layer TAF reservoir “Z” of “BN” oil field was produced in 1998. Blok “Mustika” has 8.84 MMSTB Original Oil In Place (OOIP) with cumulative production 1.175 MMSTB until Desember 2009, recovery factor 14% and last status of this Blok is suspended. According to decline curve analysis, Blok “Mustika” still has 3.674 MMSTB remaining reserve.

To produce the remaining reserve that still can be produced needs Plan of Development scenario that will be calculated according to economic analysis study to evaluate the economic value of the Plan of Development scenario. According to the result of economic analysis that have been calculated using PT. Pertamina EP Kontrak Kerjasama Operasi (KSO) models, scenarios that have economic values are layer TAF with scenario I and II, and layer M with scenario I and II.

According to Blok “Mustika”’s Plan of Development economic analysis study that has been calculated, with assumption 6,170,000 USD investment, 638,709 STB production forecast, and 47,559 the value of baseline (NSO) that proposed, will give 57,483,898 USD total revenue until end of project (15 years). The revenue will be splitted according to Kontrak Kerjasama Operasi’s fiscal regime, so Pertamina EP gets 11,955,539 USD revenues, Indonesia Government gets 29,914,899 USD revenues, and Partner gets 5,769,982 USD with Partner’s total cost recovery 9,843,398 USD. The economic indicators for Partner that have been calculated are NPV = 2,441,129 USD, IRR = 51,46%, PIR = 0,81, DPIR = 0,40, and POT = 2,85 years.

After the economic analysis study have been done, sensitivity analysis will be calculated after that, to know the sensitivity ratio of economic indicators to the changes of economic parameters. The assumptions that will be used in this calculation are 90 USD/STB for the oil price and 7 USD/STB for the lifting cost, 6,170,000 USD for investment, 638,709 STB for the oil forecast production and 47,599 STB proposed baseline (NSO). According to sensitivity analysis study, the most change of economic parameters that affect the value of IRR are oil price, investment, oil production forecast, and NSO, and for NPV are oil production forecast, investment, lifting cost, and NSO.